

Claims:

1. Synthesis furnace having a furnace chamber surrounded by a circumferential furnace wall, in which a plurality of burners disposed essentially in one plane, with burner exit direction directed downward, and a plurality of reaction tubes disposed essentially vertically and parallel to one another are disposed, whereby the reaction tubes are heated from the outside, by means of the firing burners, characterized in that at least the outer burners (5) disposed in the region of the furnace wall (2) have a burner exit direction (R) that is inclined relative to the vertical, leading away from the center of the furnace.
2. Synthesis furnace according to claim 1, characterized in that the incline of the burner exit directions (R) of the individual burners (5) is different.
3. Synthesis furnace according to claim 2, characterized in that the incline of the burner exit directions (R) of the burners (5) increases toward the outside, toward the furnace wall (2), proceeding from the center of the furnace.

4. Synthesis furnace according to claim 1 or one of the following,
characterized in that
the incline angle, proceeding from the center of the furnace, lies between 0 and 10°, preferably between 0 and 5°.
5. Synthesis furnace according to claim 1 or one of the following,
characterized in that
the burners (5) are installed with inclined burner exit direction (R), in total, and/or their burner exit opening is disposed at an incline.
6. Synthesis furnace according to claim 5,
characterized in that
the incline of the burner exit directions (R) is adjustable.
7. Synthesis furnace according to claim 6,
characterized in that
in order to adjust the inclines, a control that takes the operating parameters of the synthesis furnace into account is provided.